

CLAIMS

I claim:

1. An electrical contact adapted for insertion into a mounting plane aperture, the electrical contact comprising:

an aperture engaging section having a C-shaped cross-section formed from opposing arms, said aperture engaging section having a slot arranged therein, said slot having a longitudinal axis parallel to a longitudinal axis of the electrical contact; and

said opposing arms adapted for engaging said aperture along their outer surface to the ends thereof and tapering over a circumferential arc greater than 90 degrees to a reduced cross-sectional thickness at the ends thereof.

2. The electrical contact of claim 1, wherein said C-shaped section has an outer diameter adapted for insertion into a mounting plane aperture whose inner diameter is from 8.5 to 21 percent smaller than said outer diameter of said C-shaped section.

3. The electrical contact of claim 1, wherein said mounting apertures are lined with a conductive layer adapted to provide a third conductive element to which said contact can be electrically connected.

4. The electrical contact of claim 1, wherein said first end section is adapted to merge into said C-shaped cross-section through a slotted truncated cone section.

5. The electrical contact of claim 1, wherein said first end section includes a square cross-sectional wire-wrap tail adapted to be wrapped by said first conductive element.

6. The electrical contact of claim 1, wherein said first end section is adapted to include a hat-shaped cross-sectional wire-wrap tail having a cross-sectional thickness slightly greater than said cross-sectional thickness of said C-shaped cross-section.

7. The electrical contact of claim 1, wherein said first end section is adapted to include a hat-shaped cross-sectional wire-wrap tail having a cross-sectional thickness equal to said cross-sectional thickness of said C-shaped cross-section at the thickest portion of said opposing arms.

8. The electrical contact of claim 1, wherein said aperture engaging section slot comprises one of either a substantially diamond-shaped slot, said diamond-shaped slot having rounded vertices or a substantially elliptical slot.

9. The electrical contact of claim 1, wherein said aperture engaging section slot has a length of 0.08 inches.

10. The electrical contact of claim 8, wherein said aperture engaging section slot has a length of 0.08 inches.

11. The electrical contact of claim 1, wherein said aperture engaging section slot has a length of 0.10 inches.

12. The electrical contact of claim 8, wherein said aperture engaging section slot has a length of 0.10 inches.

13. The electrical contact of claim 1, wherein said aperture engaging section slot has a width of 0.01 inches.

14. The electrical contact of claim 8, wherein said aperture engaging section slot has a width of 0.01 inches.

15. The electrical contact of claim 9, wherein said aperture engaging section slot has a width of 0.01 inches.

16. The electrical contact of claim 10, wherein said aperture engaging section slot has a width of 0.01 inches.

17. The electrical contact of claim 11, wherein said aperture engaging section slot has a width of 0.01 inches.

18. The electrical contact of claim 12, wherein said aperture engaging section slot has a width of 0.01 inches.

19. An electrical contact adapted for electrical connection to conductive elements and for insertion into an insulated board having a mounting aperture therein, the electrical contact comprising:

a first end section adapted for engaging a first of the conductive elements;

a second end section adapted for engagement with a second of the conductive elements; and

a center section, adapted for joining said first and second end sections, and having a C-shaped cross-section formed by opposing arms that taper over a circumferential arc greater than 90 degrees to a reduced cross-sectional thickness for insertion into said insulated board mounting aperture, said center section having a slot arranged therein, said slot having a longitudinal axis parallel to a longitudinal axis of the electrical contact.

20. An electrical contact adapted for insertion into an aperture, the electrical contact comprising:

a C-shaped cross-section adapted for insertion into said aperture and formed from joined opposing arms having outer surfaces that engage the inner surface of said aperture along the full axial length and full circumferential width of said opposing arm surfaces, said C-shaped cross-section having a slot arranged therein, said slot having a longitudinal axis parallel to a longitudinal axis of the electrical contact;

wherein said opposing arms are adapted to taper from the jointure thereof along the full circumferential width of said opposing arms to a reduced cross-sectional thickness at the ends thereof.

21. A method of manufacturing an electrical contact adapted for insertion into a mounting plane aperture, the method comprising:

forming an aperture engaging section having a C-shaped cross-section from opposing arms;

forming a slot in said aperture engaging section, said slot having a longitudinal axis parallel to a longitudinal axis of the electrical contact; and

forming said opposing arms for engaging said aperture along their outer surface to the ends thereof and tapering said opposing arms over a circumferential arc greater than 90 degrees to a reduced cross-sectional thickness at the ends thereof.

22. The method of claim 21, further comprising forming said C-shaped section to have an outer diameter adapted for insertion into a mounting plane aperture whose inner diameter is from 8.5 to 21 percent smaller than said outer diameter of said C-shaped section.

23. The method of claim 21, further comprising lining said mounting apertures with a conductive layer adapted to provide a third conductive element to which said contact can be electrically connected.

24. The method of claim 21, further comprising forming said first end section to merge into said C-shaped cross-section through a slotted truncated cone section.

25. The method of claim 21, further comprising forming said first end section with a square cross-sectional wire-wrap tail adapted to be wrapped by said first conductive element.

26. The method of claim 21, further comprising forming said first end section with a hat-shaped cross-sectional wire-wrap tail having a cross-sectional thickness slightly greater than said cross-sectional thickness of said C-shaped cross-section.

27. The method of claim 21, further comprising forming said first end section with a hat-shaped cross-sectional wire-wrap tail having a cross-sectional thickness equal to said cross-sectional thickness of said C-shaped cross-section at the thickest portion of said opposing arms.

28. The method of claim 21, further comprising forming said aperture engaging section slot as one of either a substantially diamond-shaped slot, said diamond-shaped slot having rounded vertices or a substantially elliptical shaped slot.

29. The method of claim 21, further comprising forming said aperture engaging section slot to have a length of 0.08 inches.

30. The method of claim 28, further comprising forming said aperture engaging section slot to have a length of 0.08 inches.

31. The method of claim 21, further comprising forming said aperture engaging section slot to have a length of 0.10 inches.

32. The method of claim 28, further comprising forming said aperture engaging section slot to have a length of 0.10 inches.

33. The method of claim 21, further comprising forming said aperture engaging section slot to have a width of 0.01 inches.

34. The method of claim 28, further comprising forming said aperture engaging section slot to have a width of 0.01 inches.

35. The method of claim 29, further comprising forming said aperture engaging section slot to have a width of 0.01 inches.

36. The method of claim 30, further comprising forming said aperture engaging section slot to have a width of 0.01 inches.

37. The method of claim 31, further comprising forming said aperture engaging section slot to have a width of 0.01 inches.

38. The method of claim 32, further comprising forming said aperture engaging section slot to have a width of 0.01 inches.

39. A method of manufacturing an electrical contact adapted for electrical connection to conductive elements and for insertion into an insulated board having a mounting aperture therein, the method comprising:

forming a first end section adapted for engaging a first of the conductive elements;

forming a second end section adapted for engagement with a second of the conductive elements; and

forming a center section, adapted for joining said first and second end sections, with a C-shaped cross-section;

forming said C-shaped cross-section with opposing arms that taper over a circumferential arc greater than 90 degrees to a reduced cross-sectional thickness for insertion into said insulated board mounting aperture; and

forming a slot in said center section, said slot having a longitudinal axis parallel to a longitudinal axis of the electrical contact.

40. A method of manufacturing an electrical contact adapted for insertion into an aperture, the method comprising:

forming a C-shaped cross-section, adapted for insertion into said aperture, with joined opposing arms having outer surfaces that engage the inner surface of said aperture along the full axial length and full circumferential width of said opposing arm surfaces;

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forming a slot in said C-shaped cross-section, said slot having a longitudinal axis parallel to a longitudinal axis of the electrical contact; and

forming said opposing arms to taper from the jointure thereof along the full circumferential width of said opposing arms to a reduced cross-sectional thickness at the ends thereof.